

**Amendments to the Claims:**

This listing of claims replaces all prior versions, and listings, of claims in the application.

Material to be inserted is in **bold and underline**, and material to be deleted is in **strikeout** or (if the deletion is of five or fewer consecutive characters or would be difficult to see) in double brackets [ [ ] ].

Please cancel claims 1 and 4-6 without prejudice.

Please amend claims 2, 3, 17 and 19 as indicated below.

**Listing of Claims:**

1. (Cancelled)
2. (Withdrawn - Currently Amended) The drop generator inhaler of claim [[1]] 17 wherein [[the]] a ratio of the chamber thickness to the square root of the transducer area is less than 0.50.
3. (Withdrawn - Currently Amended) The drop generator inhaler of claim [[1]] 17 wherein [[the]] a ratio of the chamber thickness to the square root of the transducer area is about 0.35.
4. (Cancelled)
5. (Cancelled)
6. (Cancelled)
7. (Previously Presented) A method of generating droplets, comprising the steps of:
  - providing a supply of liquid;
  - configuring liquid-holding chambers to include orifices such that liquid that is propelled from the chambers passes through the orifices along a trajectory;
  - filling the chambers with some of the liquid;
  - providing a planar heat transducer in each chamber, the planar heat transducer being oriented in a plane substantially perpendicular to the trajectory of the propelled liquid;
  - instantaneously heating the liquid in the chambers by an amount sufficient to produce a vapor bubble in each chamber for propelling liquid from each chamber; and

sizing the heat transducer relative to the chamber such that the liquid that is propelled from the chamber separates to form droplets, wherein each droplet has a volume of less than 100 femtoliters.

8. (Cancelled)

9. (Previously Presented) The method of claim 7 including the step of instantaneously heating the liquid so that the liquid in the chamber is propelled as a result of a single instance of heating the liquid.

10. (Previously Presented) The method of claim 7 further comprising the step of providing an orifice member that has at least two orifices extending from the chamber to permit liquid to be propelled through the orifices from the chamber.

11. (Cancelled)

12. (Cancelled)

13. (Previously Presented) The method of claim 7 wherein the propelling step includes propelling the droplets along separate trajectories.

14. (Previously Presented) The method of claim 7 wherein the propelling step includes propelling the droplets along separate trajectories that diverge in the direction away from the orifices.

15. (Previously Presented) A method of generating droplets, comprising the steps of:

providing a supply of liquid;

filling chambers with some of the liquid;

providing a planar heat transducer within each chamber;

instantaneously heating the liquid in the chambers by an amount sufficient to produce a vapor bubble in each chamber that propels the liquid from the chamber through an orifice and along a trajectory, and

orienting the planar heat transducer in a plane that is substantially perpendicular to the trajectory and spaced sufficiently near the orifice so that the propelled liquid separates into two or more droplets upon exiting the orifice.

16. (Original) The method of claim 15 including the step of configuring each chamber so that each droplet has a volume of less than 100 femtoliters.

17. (Currently Amended) An inhaler, comprising:

a body including a mouthpiece;

a supply of liquid carried in the body;

a drop generator head mounted to the body in fluid communication with the liquid and having a plurality of chambers therein, each chamber receiving some of the liquid and opening to surrounding air; and

a plurality of heat transducers, one heat transducer residing in each chamber and controllable for instantaneously heating the liquid in the chamber by an amount sufficient to produce a vapor bubble in the chamber for propelling the liquid from the chamber in the form of droplets, each droplet having a volume of less than 100 femtoliters, thereby to facilitate aerosol delivery of the droplets to the alveoli of a user of the mouthpiece; and

wherein each heat transducer has an area and is mounted adjacent to an upper surface in the chamber, and the drop generator includes an orifice opening through an outer surface of the drop generator head, and wherein a distance between the upper

surface of the chamber and the outer surface is less than 0.75 times the square root of the area of the heat transducer residing in that chamber.

18. (Cancelled)

19. (Currently Amended) An inhaler, comprising:

a body;

a supply of medicinal liquid carried in the body;

a drop generator head mounted to the body in fluid communication with the medicinal liquid and having a plurality of chambers therein, each chamber receiving some of the medicinal liquid and each chamber having an orifice;

a plurality of heat transducers, one heat transducer being associated with each chamber and controlled for instantaneously heating the medicinal liquid in the chamber by an amount sufficient to produce a vapor bubble in the chamber for propelling medicinal liquid ~~through~~ through the orifice with force sufficient for separating the propelled liquid into two or more droplets for inhalation by a user; and

a mouthpiece connected to the body and within which the droplets are introduced for inhalation by a user, the mouthpiece including a recess formed therein in an exterior surface thereof for directing gas to the propelled droplets inside the mouthpiece, thereby to entrain the droplets in the gas.

20. (Original) The inhaler of claim 19 wherein the liquid propelled from a single chamber is directed through a single orifice to separate into two or more discrete droplets traveling in different trajectories.

21. (Original) The inhaler of claim 19 wherein the liquid propelled from a single chamber is directed through at least two orifices that separate the liquid into two or more discrete droplets.

22. (Cancelled)

23. (Cancelled)